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ABSTRACT

Designed as a practical guide for educators and parents, the guidelines explain cluster grouping of gifted students, i.e., the intentional placement of several gifted students in a regular classroom with a teacher who has additional training in gifted education. Personal teaching styles related to success with gifted students are noted as are special skills for cluster class teachers. Advantages and disadvantages are listed for the approach and staffing patterns illustrated by means of a typical elementary application. Program development, philosophy, teacher preparation, and instructional process suggestions based on Bloom's classification of educational objectives in the cognitive area are described. The guidelines conclude with an examination of ways in which curriculum can be designed to encourage creativity. (CL)

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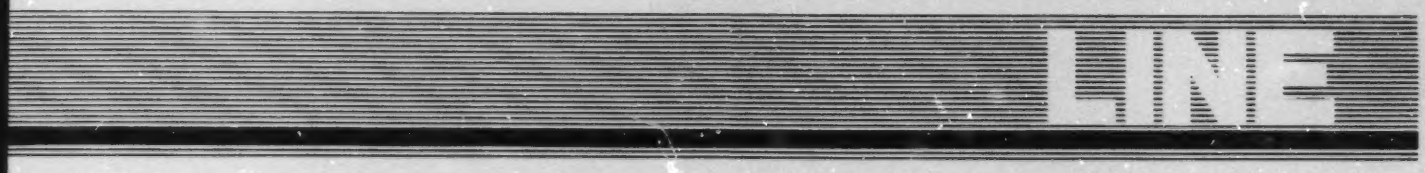
CLUSTER GROUPING
for the
GIFTED

by

Claire Fleischman McInerney

THE BOTTOM LINE: Research-based Classroom Strategies A Series for Teachers



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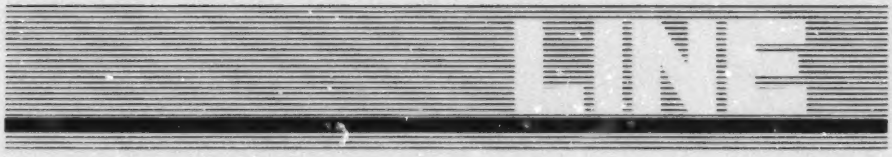
Claire Fleischman McInerney, MA, is a teacher with more than seventeen years teaching and curriculum design experience. As an educator, she has worked with adults and young people, and has specialized experience in early childhood education. She has broad experience as a gifted education consultant with a major metropolitan school service unit.



THE BOTTOM LINE Series deals with issues, trends and problems that confront today's classroom teacher. The purpose of the Series is to give teachers examples and leads to the best available research on current topics in education and to provide some practical and expert strategies for improving teaching. THE BOTTOM LINE Series is research-based and created by teachers, for teachers. The Series is available in single copies or in quantity pricing for seminars and in service-training. Call or write LINE, Inc. today.

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INTRODUCTION

If we truly believe that

"... THE PURPOSE OF A DEMOCRATIC SOCIETY IS

TO MAKE GREAT PERSONS,"

and that

"A DEMOCRATIC WAY OF DOING ANYTHING IS A WAY

THAT BEST KEEPS AND DEVELOPS THE INTRINSIC POWERS OF PEOPLE,"
(1)

then we must nurture our gifted and talented students and help them develop the powers they hold within them. Gifted students are young people with special needs, who must have their needs recognized every bit as much as the handicapped child.

How to serve gifted and talented students during tight economic times is a challenge facing educators and parents. Although any new program will require funding - - - there's just no way around this - - - many educators are looking favorably at cluster grouping of students as one attractive, low-cost alternative program.

CLUSTER GROUPING for the GIFTED is another of the BOTTOM LINE series, designed as a practical guide for educators and parents. In a question and answer format, the material will explain exactly how cluster grouping works. The format is easy to read, the writing is jargon-free, with a list of resources included for further study.

Those considering cluster classes in their school or school district will find answers on the following topic areas:

* Program Prototype - What is cluster grouping?

  - What are the advantages/disadvantages?

* Administrative Concerns

  - How can a program get started?

  - How are classrooms scheduled?

  - How are personnel chosen?

* Teacher Training - How can creativity and higher level thinking skills be encouraged?

* Challenging Learning Experiences - some samples

* WHAT IS CLUSTER GROUPING OF GIFTED STUDENTS?

When several gifted students (usually 3-6 children) are intentionally placed in a regular classroom with a regular classroom teacher who has additional training in gifted education, the curriculum prototype is called cluster grouping or clustering.

For cluster grouping to be practical, the other students in the classroom should be of average or above average ability. A truly mainstream classroom with mentally or emotionally handicapped children as well as average ability children and gifted students could be extrememly difficult and frustrating for the teacher and also the students.

In the cluster classroom the teacher will know how to balance the needs of the gifted child with the resources available. The cluster teacher must be a good time manager, flexible enough to have several projects in progress at one time. She must be able to live with ambiguity, having loose ends of learning units for groups of students "hanging fire" while other projects are ready for completion. Being a good record keeper is also a definite asset!

* WHAT ATTRIBUTES AND TEACHING STYLES DETERMINE SUCCESS WITH GIFTED STUDENTS?

Teaching gifted/talented children takes not only special skills but also attributes inherent in the personal teaching style of the individual.

Success indicators in teachers of the gifted:

* high energy - to match the student's energy level
* flexibility - to accept diverse ways of thinking
* curiosity - in order to share the ever-present appetite students have for new information
* creativity - in order to adapt the curriculum to the needs of the students
* organization - the ability to have several things going simultaneously
* openness - to different learning styles
* willingness to change - knowing that the textbook does not have all the answers
* love of learning & research - in order to be a role model for students
* sense of humor - in order to maintain sanity
* humility - to know that some students will be smarter than the teacher

Because most people who enter the teaching profession have a need for intellectual stimulation in addition to a lifelong love of learning, most teachers will enjoy working with gifted youngsters. For many teachers having a cluster classroom renews their interest in the profession and turns them on to teaching again. The rapid progress of gifted children, the curiosity they display, the way they steadfastly pursue a research topic, along with genuine interest in learning new things, is an inspiration to any adult.

Teaching the gifted does have its drawbacks and inconveniences. For example, the three gifted children in Ms. Little's kindergarten class are already reading. The pre-reading activities designed for the rest of the class are not appropriate for these three students. Ms. Little has arranged for them to leave the class each day and join Mr. Alcott's top reading group in the first grade.

*** Timing can be tricky! ***

The end of Mr. Alcott's reading group may not coincide exactly with the end of Ms. Little's activity, so the gifted children do not always return in sync with the rest of the class. Moving bodies from place to place in order to accomodate learning needs is disruptive to some teachers. In a school where the teachers are truly concerned about the needs of the gifted children, however, such disruptions are taken in stride. Teachers know that to do things more homogenously would jeopardize individual learning.

Although most activities in a cluster classroom are designed to be self-contained, everyone in a school must use common sense about planning and scheduling. Common sense may dictate that children from one class join another for certain activities. It is the cluster classroom teacher, however, who recommends and plans appropriate learning activities for the child.

* WHAT SPECIAL SKILLS ARE NEEDED TO BECOME CLUSTER CLASS TEACHERS?

In order for effective programs to flourish, teachers of the gifted will have expertise in the following:

1. Methods of identifying gifted students and the tools and time to diagnose their special learning needs.

2. A thorough understanding of the curriculum plan for the grade level and school district. Without this understanding differentiated curriculum for the gifted often takes a "shotgun" approach: kits and games or a potpourri of activities that may be fun but do little to enhance the basic learning needs of the child. Without a coordinated effort of challenging assignments and projects for the gifted, the program is seen as a reward for the bright students.

   A program for gifted students should be neither a reward (e.g. "they get to take all the field trips") nor a punishment (e.g. "they have to work harder than anyone else, and miss all the fun in the regular classroom"). A gifted education program consists of learning experiences to match the abilities of the students.

3. A clear idea of learning resources available to students in the school and the community, such as libraries, colleges, business sources, parents with special skills. A gifted child's need for information will often stretch beyond what is available in one school building.

4. The ability to differentiate curriculum for gifted/talented students, including:

   a. familiarity with higher level thinking skills and exercises to practice and master higher level thinking

   b. understanding of creative thinking and methods to encourage creative thought

   c. thorough knowledge of research and writing methods as well as a systematic approach to teaching effective research and excellent writing and communications skills

   d. understanding of critical thinking skills as well as techniques to help develop and master these skills

5. Effective time management techniques as applied to classroom learning.

* WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF CLUSTER GROUPING?

Having gifted students clustered in groups in the regular classroom throughout the school raises the level of teaching and tends to individualize learning; however, cluster teachers need training in higher level thinking skills and in curriculum planning to meet special needs. Becoming a better teacher of gifted students often has a spillover effect on all children in a cluster classroom. Before long other children are challenged, expectations are raised, excellence becomes the standard; all children benefit in the process.

When teachers rotate as the cluster class teacher, the gifted children become everyone's responsibility. They are not the exclusive province of the gifted/talented coordinator or the resource room teacher or any other professional. The gifted students are merely part of the class, not an elite group isolated from the rest of the school.

Cluster grouping is a type of mainstreaming similar to the mainstreaming of handicapped or other special needs students. The only difference is that in a cluster group setting, a deliberate effort is made to place several gifted students in the same room so that the teacher can give the gifted/talented students appropriate assignments and learning experiences. A cluster classroom encourages the teacher to show more understanding for gifted students rather than irritation at the constant questions they concoct.

CLUSTER GROUPING

ADVANTAGES

- usually provides inexpensive programming for special needs
- avoids stigma of elitism
- allows students to work with non-gifted peers
- provides other students with a stimulating atmosphere
- spillover effect on all students usually produces more challenging work
- upgrades the level of teaching in the school
- heightens awareness level among total faculty for the gifted child's needs
- requires teacher training in higher level thinking skills making teachers more knowledge-able
- children are less likely to miss work done in the regular classroom (i.e. students do not leave the classroom as much as they would if they were in a "pullout" program)
- is usually a popular program with students and parents

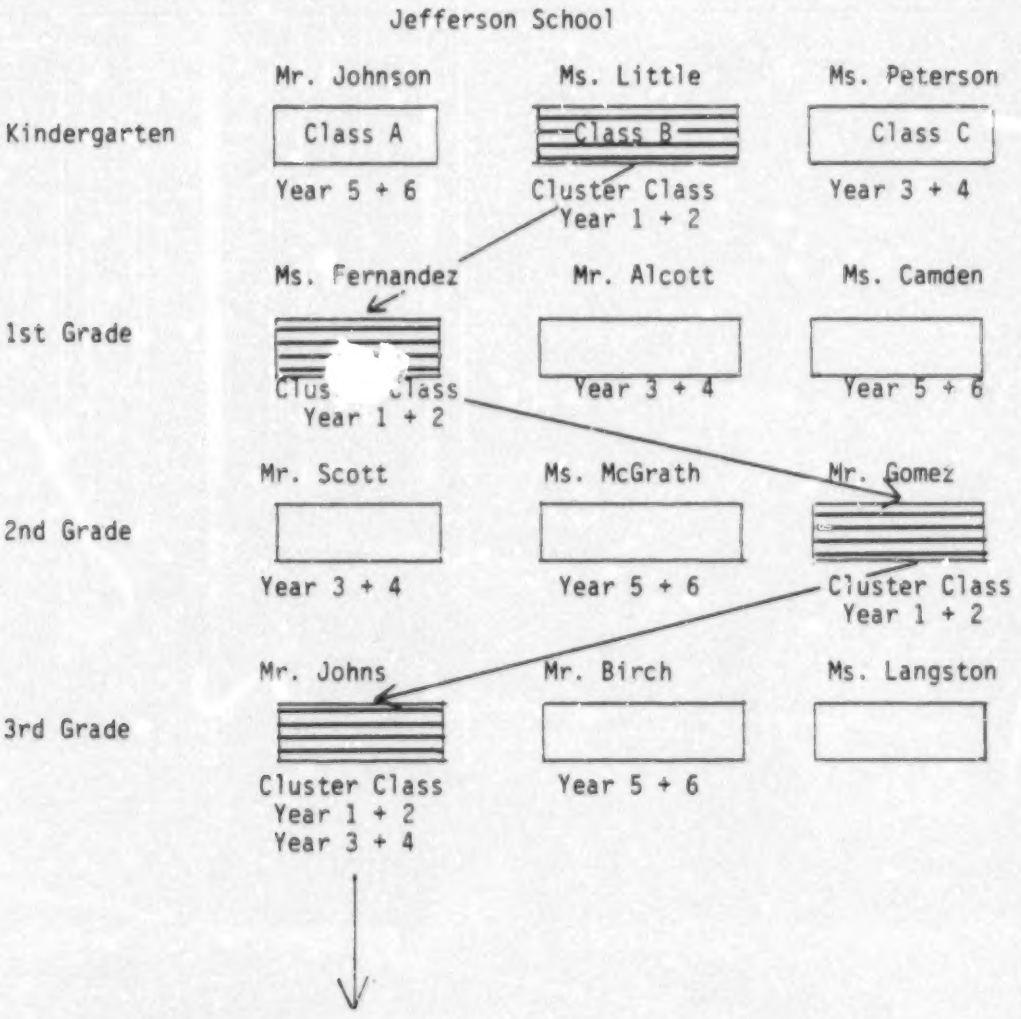
DISADVANTAGES

- requires special teacher training
- may require more prep time for the teacher
- may provide only lip service for gifted students if work is not truly differentiated for them
- may provide spotlight and leadership roles for gifted learners because of their highly developed verbal ability (other may withdraw to the background)
- may not allow enough time for gifted students to work with gifted peers
- may not provide for flexible enough scheduling (e.g. in completing a research project, students may need to use large segments of time, time that may be difficult to arrange in a regular classroom)

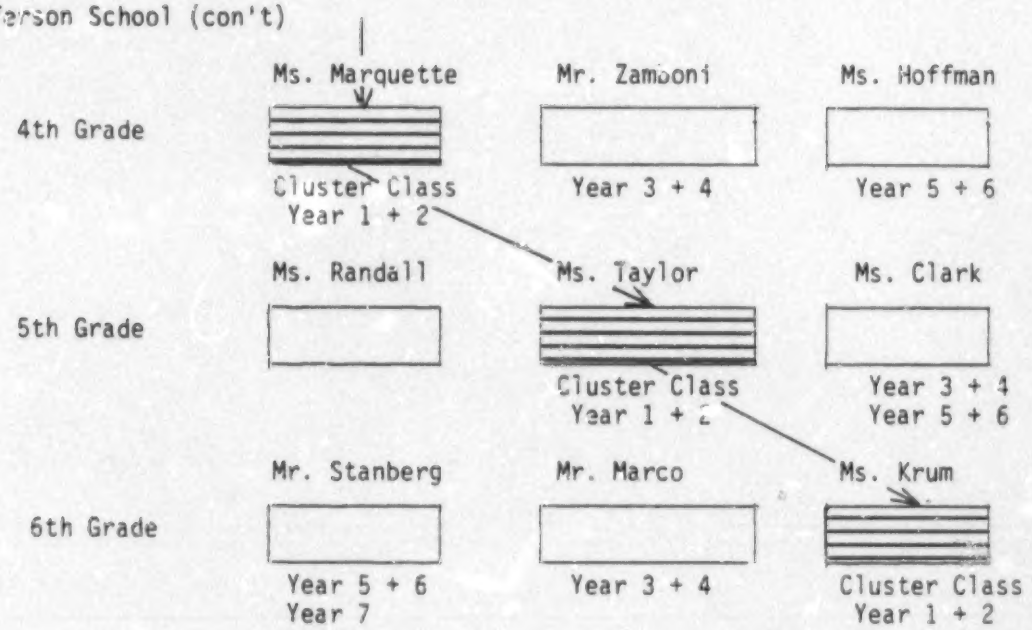
* HOW DOES STAFFING FOR CLUSTER CLASSES WORK?

Here's how it works: a typical elementary school, Jefferson School, has a population of 500 students with 21 classrooms. (See diagram A.) In this size school we could expect there to be approximately 25 gifted/talented students (5% of the population). In clustering 3-5 gifted/talented students in one classroom per grade, the students can participate in differentiated learning experiences. The following chart shows a cluster grouping plan.

(diagram A)



Jefferson School (con't)



Following kindergarten class B through the grades, you can see that they will go from Ms. Little's kindergarten into Ms. Fernandez's first grade. During the third year that Jefferson School has cluster grouping, Class B will be in Mr. Scott's second grade. By the end of year 3, as you can see from the diagram, almost half of Jefferson's teaching staff has had an opportunity to work with gifted students in a systematic way. The wise principal has made certain that training in teaching methods for the gifted was provided at workshops before and during the school year. All teachers participated so that those teachers who began the clustering program (Little, Fernandez, Gomez, Johns, etc.) could ask experienced-based questions and could offer helpful suggestions to teachers who are new to the process.

Any principal can justify the heavy emphasis on in-service training needed for teaching the gifted because the principal can show that teachers will be learning about thinking and learning skills, learning styles, creativity development, individualized learning and differentiated curriculum, all topics which can be used to different degrees in teaching all children.

By year 7 when Class B is in Mr. Stanberg's class, almost all of the teachers have had "clusters." The only reason some did not was that they were reluctant to volunteer as cluster teachers. For example, the diagram shows Mr. Johns teaching the cluster class years 1 and 2 as well as years 3 and 4. One teacher had cluster classes four consecutive years because Ms. Langston chose not to take a gifted cluster into her classroom.

It is important to keep the process voluntary with strong encouragement and support from the administration. A teacher who does not want the responsibility of the gifted in his/her classroom will not be doing these children a service. When a few staff members take up the task and prove successful in the cluster classroom, other teachers will usually come around and offer to take a gifted cluster.

* HOW CAN A CLUSTER CLASS PROGRAM GET STARTED?

Before teachers and parents can plan specific learning activities in a cluster class and design a gifted program, several factors must be taken into consideration:

- community and societal values
- the philosophy formulated as a basis for the gifted program
- the curriculum plan for the entire school (or school system)
- resources available (time, space, people, materials)

Examining the values of the community and of society as well as developing a philosophy statement for the gifted program are the first steps. No program should be planned without a clear philosophy statement. Any program will flounder if the teachers, parents and administration do not understand why the program is needed and what are its goals. It is true that some students will benefit even without a firm base, but there is no guarantee that the program will survive.

As Dr. Sandra Kaplan points out in her classic book Providing Programs for the Gifted and Talented:

> The selection of staff, the development of curriculum, and the arrangement for experiences are dictated by the philosophy of the program. Formulating a program without synchronizing purpose with practice is much the same as performing a ritual without understanding why. The philosophy is the benchmark against which decisions about program participants and provisions are made. (2)

Programs without a strong philosophical base will often be difficult to defend and face the danger of being viewed as "add ons," easily cut when budget decisions are made. In their zeal to serve gifted/talented students, some educators and parents jump into the learning activities, skipping the philosophy step.

Understandably so it is a temptation for parents on a planning committee to want to get something going for their children NOW with little regard for children coming into school 10, 15, or 20 years down the road. However, the truly future oriented and forward-thinking planning group will take time to look at the following questions in order to formulate a thoughtful and realistic philosophy through which the program can find a focus.

* WHAT KIND OF PHILOSOPHY STATEMENT IS HELPFUL IN MAINTAINING A G/T PROGRAM?

In the long run the program will be successful and remain strong if the following questions are considered first:

- What do we want gifted and talented students to be or do as an outcome of their education?
- Is the purpose of education for the gifted and talented to promote the development of self or for the contributions they can make to society?
- Is learning how to learn more or less important than what is being learned?
- Is quality or quantity the focus of the program?
- Should learning emphasize the assimilation of information or the development of thinking processes?
- Is the progress of the gifted and talented measured against the group, the average, or the self?
- Is the winning of prizes, scholarships, and "A's" an indicator of success? (3)

By examining these questions the gifted/talented planning committee will formulate a program philosophy. The answers to these questions will be invaluable in integrating the gifted education program within the established curriculum. The conclusions reached will also help the cluster teacher in deciding on appropriate learning activites within the classroom and independent study assignments.

* WHAT INFORMATION IS HELPFUL TO TEACHERS PREPARING TO WORK WITH GIFTED CHILDREN?

Teachers in each school should be knowledgeable in the program goals as well as the day to day management details of the gifted education program. Cluster class teachers will benefit especially from brush up sessions on thinking skills.

Clear and thorough understanding of Bloom's Taxonomy will serve the teacher well in helping him/her understand the levels of learning occurring simultaneously in the cluster classroom.

Benjamin Bloom's classification of educational objectives in the cognitive area (often referred to as Bloom's Taxonomy) divides the levels of learning into the following steps:

EVALUATION

SYNTHESIS

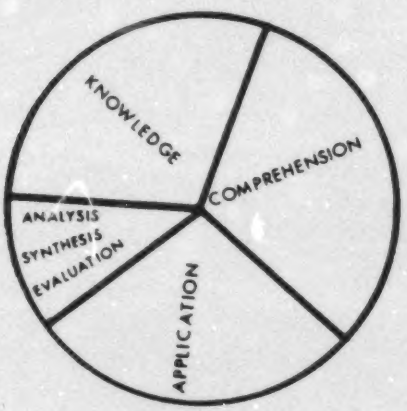
ANALYSIS

APPLICATION

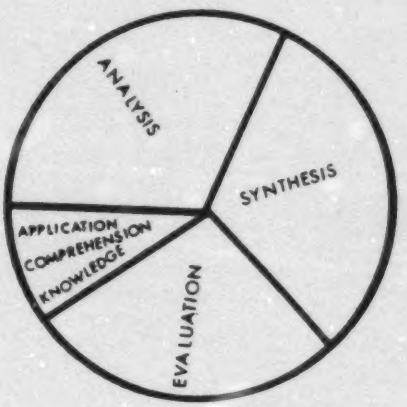
COMPREHENSION

KLOWLEDGE

Traditional classroom teaching has focused on students acquiring and knowing facts and information (knowledge) along with understanding the facts and information (comprehension); programs for the gifted and talented, however, stress learning experiences from the upper levels of the taxonomy. The following pie graphs show the differences in the amount of time gifted students typically spend on educational objective areas as compared with average students.



AVERAGE STUDENT



GIFTED LEARNER

Because gifted students learn facts quickly and easily, they can go right on to applying the facts, analyzing situations related to the facts, synthesizing the information, and evaluating options in order to reach a conclusion or solve problems. An analysis of the graphs shows why a gifted child could easily become bored and disruptive in a typical classroom if she is forced to sit through session after session of learning information she assimilated quickly the first time it was presented.

The cluster class teacher in understanding the needs of all the children can spend time drilling and reviewing with the mainstream regular children while the cluster of gifted students are working on independent study or a group project that requires higher level thinking skills. By becoming conversant with Bloom's Taxonomy, the teacher can guide other students into using their higher level skills when they are ready and have had a firm foundation in the knowledge and comprehension levels of a subject.

Dr. Kaplan offers the following chart of learning/process verbs to help teachers plan for creative questioning, challenging assignments, as well as thought provoking test questions. (4)

* BLOOM'S EDUCATIONAL OBJECTIVES/CURRICULUM DEVELOPMENT VERBS

KNOWLEDGE	explain-show-list-observe-demonstrate-uncover-recognize-discover-experiment
COMPREHENSION	explain-translate-group-conclude-summarize-describe
APPLICATION	organize-group-collect-apply-summarize-order-classify-model-construct-relate-code
ANALYSIS	take part-part of . . -fill in-take away-put together-combine-differentiate-divide-isolate-order-separate-distinguish-dissect-subtract-associate-relate-pattern
SYNTHESIS	contrast-add to-predict-assume-translate-extend-hypothesis-design-reconstruct-rename-reorganize-regroup-restate-systematize-symbolize-vary-formulate-substitute-modify-minimize-maximize-alter-connect
EVALUATION	interpret-judge-justify-criticize-solve-decide-infer-verify-conclude

* HOW CAN HIGHER LEVEL THINKING SKILLS BE ENCOURAGED?

The process/learning verbs chart can be used as a "cheat sheet" for teachers when planning a unit of study for their cluster class. Here's how to use in formulating discussion starters for a 5th or 6th grade class:

* Unit: Midwestern States . . . . Social Studies

KNOWLEDGE	1.	List names of as many midwestern states as you can.
COMPREHENSION	2.	Describe the geographical qualities of the states in this unit: rivers? lakes? terrain? climate? vegatation?
APPLICATION	3.	Organize into the following groups: mainly industrial, mainly agricultural, combination.
ANALYSIS	4.	What was the growth that evolved in cities founded along the rivers? Relate this pattern of growth to industries that developed in the river cities. What part do these industries play in the economic life of their respective cities today.
SYNTHESIS	5.	Compare and contrast the industrial growth of Detroit and Chicago as well as Minneapolis and St. Paul. What industries symbolize these cities?
EVALUATION	6.	What effect have the antipollution (environmental protection) laws of the past 20 years had on the rural and urban environments of midwestern states? Verify you conclusions with summaries of scientific research and statistical studies.

Obviously the average 5th or 6th grader would seldom if ever be required to answer questions such as those in categories #5 and #6. However, gifted students are capable of answering (although they still may not find it easy) and are challenged by such questions. Research skills must be an essential element in any gifted education program with the librarian cultivated as a partner in the educational process. In any school where cluster grouping exists the librarian should be recruited as an active and willing team member and given full in-service training in teaching the gifted students.

Here is another example using the Kaplan verbs in differentiated assignment planning:

* Unit: Parts of Speech . . . . Language Arts

KNOWLEDGE: 1. List the eight parts of speech. Demonstrate each part of speech by writing 8 sentences underlining the word in each sentence that illustrates a different parts of speech.

COMPREHENSION: 2. Explain the function of each part of speech (orally or in writing).

APPLICATION: 3. Classify each underlined word in the following paragraph as to its part of speech.

ANALYSIS: 4. Create your own "Mad Libs"* by writing a story. Leave a blank space in each sentence and indicate which part of speech should be filled in. The class will do the "Mad Libs" together. *("Mad Lib" is a common party game where the group inserts a part of speech (noun, verb, adjective) to make the story funny.)

SYNTHESIS: 5. Design your own high tech language by first writing down a list of high tech nouns (e.g. robot, software, glitch, etc.) and then turn the nouns into verbs. Write a science fiction story using your new verbs. Dramatize your story in a radio play. Record on audio tape.

EVALUATION: 6. Read several accounts of the same news story in several different sources (local paper, NY Times, Newsweek, etc.) Evaluate the effectiveness of each account by evaluating the use of adjectives, adverbs, nouns and verbs. Using transparencies on the overhead projector, show how the adjectives, adverbs, nouns and verbs differ in each report.

* HOW CAN CURRICULUM BE DESIGNED TO ENCOURAGE CREATIVITY?

One other learning theory that teachers can turn into a useful tool for day-to-day planning is J.P. Guilford's Structure of the Intellect Model. (5)

Often known as just Guilford's model or Guilford's cube, it defines intellectual operations (process), content, and products.

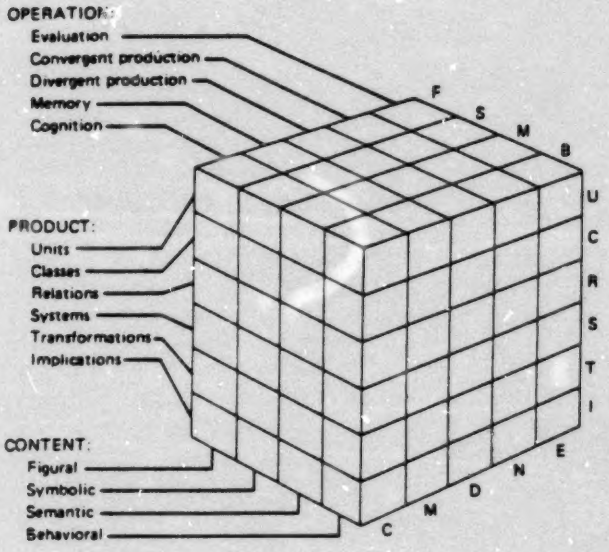
Although it would do all educators well to study Guilford's work in detail in order to understand the myriad dimensions of learning, the cube provides special help for the cluster class teacher in planning for learning activities

To summarize Guilford very simply, curriculum consists of the following elements:

CONTENT - the information, concepts, generalizations to be learned.

PROCESS (Operations) - the means by which the content is learned.

PRODUCTS - the system of organizing the learning; the evidence that learning has taken place.



Again by looking at level #5 or #6 assignments requiring the student to synthesize and evaluate information, it is obvious that the average sixth grade student would find the assignments very difficult. Assignments such as #5 or #6 (creating a language and evaluating several news stories) might very well be given to average students as a culminating activity or after much preparation and hard work of the part of the teacher. Gifted sixth graders, however, could be given such assignments after some minimal suggestions and instructions.

A unit pre-test can be given to the gifted students to help the teacher determine how much the students already know about a topic, such as the parts of speech. If the scores are high, advanced work can be given with the assurance that skimming over the knowledge and comprehension work is not denying the student of necessary information.

If gifted students are spending a great deal of time at the analysis, synthesis, and evaluation level, does that necessarily mean that class work for average students must be dull and routine? No, absolutely not. By learning how to use Bloom's taxonomy to design learning activities, teachers will find that their lessons are less rigid, and less dependent on a single text book. It stands to reason that if the teacher is exercising creativity in lesson planning, the classroom work will become more exciting for the students as well.

There are several theories of learning that can be used as a basis for planning work in the higher level thinking skills. Bloom's taxonomy is the one used here because of its familiarity to most educators.

Teachers may not be practiced in writing curriculum routinely because so much printed material is already available in the form of texts and learning packets, but in a cluster classroom curriculum it must be adjusted and reworded, and sometimes written from scratch. By using the Content - Process - Products - Thinking/Learning Skill guidelines Guilford offers, the job can be easy and staisfying.

Here is an example of learning activities planned by keeping the three curriculum components in mind:

Unit: The Planets (Interdisciplinary - Science and Literature)

Content: Major concept: Men and women have been studying the physical properties of earth's sister planets for centuries. Earthlings have tried to make sense of their own place in the universe by writing and conjecturing about the unknown in space.

Process:	Product:	Thinking/Learning Skill
1. Read articles in books and magazines about the planets.Take notes on the size (diameter) of each planet; the distance from the sun;the length of the planet's day (time needed for turning on its axis); and any other details that seem interesting or useful.	1. On poster board or butcher paper make a chart with pictures showing the size of each planet. Use color. Under each picture list other information you have learned about each planet.	1. Knowledge/ Notetaking
2. Choose one planet and read as much as you can about its physical properties (check out sources from the public library.)	2. Make an overhead transparency with a picture of your planet in color (you'll need permanent ink colored magic markers. In five minute oral report, tell the class about your planet (temperature, gases, terrain.)	2. Comprehension/ Application Locating evidence

Process:	Product:	Thinking/Learning Skill
3. Learn more about the Greek or Roman god or goddess you planet is named for. Look at a film about Roman gods and goddesses or read about the mythical deity in a text about mythology.	3. In a short (30 sec.-1 min.) radio commerical promote your planet as a place to visit. Give the advantages and disadvantges using the information you you have learned. Entice the listener by showing the qualities for which the planet is named . . . for example: "Mars is a planet for the strong. Named after the Greek god of war, it glows red, day and night. If you're ready for a challenge, tackle Mars on your next vacation."	3. Analysis/Synthesis Practicing persuasion techniques & Percise writing techniques
4. Read Douglas Adams' The Hitchhiker's Guide to the Galaxy (Pocket Books $2.95)	4. After thoroughly researching "your" planet and reading Hitchhiker's Guide, create a reader's theatre short story, a skit, or a video script which depicts life on you planet. Class will choose 1 or 2 of the pieces to produce together after writing assignments are complete.	4. Prediction Creative Writing Using a successful role model

SUMMARY

It is well to keep in mind that a teacher is a tremendous influence on a young person's life. The cluster classroom teacher has the opportunity to encourage, to inspire and to share helpful ideas with others who work with gifted children. The challenge is there to do original work in planning for a classroom that has many opportunities to challenge the students, preparing them for a lifetime of learning.

By working within the parameters of Bloom's Taxonomy, using the suggestions of Dr. Kaplan and the work of Guilford, teachers can fashion a classroom open to the needs of the children who are gifted and talented. Real learning can proceed at the child's independent rate.

Although organizing a cluster class program for children with special needs is a great deal of work and requires some original thought, it can be a renewing experience for the teacher, a welcome answer for the school administration, and a positive experience for the students.

* SELECTED RESOURCES

Bloom, Benjamin (ed.). TAXONOMY OF EDUCATIONAL OBJECTIVES: HANDBOOK I, COGNITIVE DOMAIN, New York: David McKay, 1956.

This is the classic work from which the hierarchy of thinking and learning skills (knowledge, comprehension, application, analysis, synthesis, and evaluation), known as Bloom's Taxonomy, is extracted.

Clendening, Corinne P. and Ruth Ann Davies. CREATING PROGRAMS FOR THE GIFTED, New York: Bowker Co., 1980.

A comprehensive work on gifted education, the Clendening book outlines program prototypes, examples of lessons, philosophy statements and a K-12 schematic for a research skills and communications skills curriculum. This is an excellent resource for the newcomer to the field who would like to have an "encyclopedia" of gifted education in their professional library.

Gallagher, James J. TEACHING THE GIFTED CHILD. 2nd ed. Boston: Allyn and Bacon, 1975.

In what has come to be another classic, James Gallagher relates the whys and wherefores of a program for gifted students. His style is readable and interesting,, and his words reflect the affection be obviously feels for these children. Using case studies, Gallagher is clearly persuasive in showing the special needs of the gifted and talented.

Jeska, Linda and Roseann Lloyd. G.E.R.M. OF GOOD IDEAS. St. Paul: Educational Cooperative Service Unit, 1980.

This primer of gifted education outlines the theories of the major experts in the field, includes information on program alternatives, as well as curriculum developed by a teacher cadre. An extensive list of resources in also included. Valuable information in the appendix and in-service section can be duplicated (with appropriate acknowledgement of the source.)

Selected Resources (cont'd.)

Kaplan, Sandra N. PROVIDING PROGRAMS FOR THE GIFTED AND TALENTED: A HANDBOOK. Ventura, CA: Office of the Ventura Co. Superintendent of Schools, 1974.

One of the most outstanding teacher trainers in the area of gifted education, Dr. Kaplan's work is an invaluable resource for anyone working with gifted students. Her book should be read, re-read. digested and memorized by all who aspire to having excellent educational programs in their schools.

Torrance, E. Paul. THE SEARCH FOR SATORI AND CREATIVITY. Buffalo: Creative Education Foundation, 1979.

This expert on creativity has written a practical and concise book on how to encourage creativity. Dr. Torrance borrows heavily from the training for Japanese artists (thus the title), but his points should be considered seriously by American educators who value creativity in the school curriculum.

OTHER RESOURCES for the Cluster Classroom Teacher

SOI Institute, 214 Main St., El Segundo, CA 90245, 213-322-5995

Testing and Measurement, In Service Training and Information on: Structure of the Intellect based on the work of J.P. Guilford and Mary Meeker

The Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091

Information on Gifted and Talented: Re-prints of one-page information sheets on curriculum

Creative Learning Press, Inc., P.O. Box 320, Mansfield Center, CT 06250

Information on developing individualized educational programs based on the work of Joseph Renzulli

National/State Leadership Training Institute on the Gifted and Talented Civic Center Tower Bldg., Suite PH-C, 316 West Second St., Los Angeles, CA 90012, 213-489-7470

Publications on all aspects of Gifted Education: In-service training, Consulting, Media rentals (films, filmstrips, etc.)

FOOTNOTES

1. Lyman Bryson, "On Deceiving the Public for the Public Good," in R.M. MacIver (ed.), CONFLICT OF LOYATIES (Institute for Religious and Social Studies, 1952), p. 12.

2. Sandra Kaplan, PROVIDING PROGRAMS FOR THE GIFTED AND TALANTED: A HANDBOOK (Ventura, CA: Office of the Ventura Co. Superintendent of Schools, June, 1974), p. 27.

3. Ibid.

4. Ibid., p. 114.

5. J.P. Guilford, THE NATURE OF HUMAN INTELLIGENCE (New York: McGraw-Hill, 1967).